Claim 5, drawn to the non-elected subject matter, has been cancelled.

No new matter is believed to be added by entry of the amendments. Upon entry of the amendments, Claims 1-4 and 6-25 will be active and in condition for allowance. Entry and favorable consideration are kindly solicited.

REMARKS

The art rejections based on Erhardt and Murakami et al are traversed. Neither of these references provides the slightest suggestion of the claimed sandwich panel because they do not teach that a core layer of polypropylene particulate foam should contain 1 to 30% by weight of recyclate particles of core layer, cover layer and optionally decorative layer components. The art rejections are unsustainable, and they should be withdrawn.

As recognized by the Examiner, Erhardt does not use 1 to 30% by weight of recycled material comprised of core component particles and outer layer component particles. Indeed, Erhardt does not suggest using recycled materials at all. To the contrary, Erhardt merely teaches sandwich panels having core layers and fiber-reinforced outer layers. The reference does not disclose or suggest that recycled materials should be used anywhere in its composite panel. The reference does not provide any reason why one should modify the composite panel and does not teach any expectation of success if the panel were so modified. Thus, as the Office has recognized, Erhardt is deficient.

The Office relies on Murakami et al to cure Erhardt's deficiency, but this reliance is misplaced. Murakami et al does not cure the deficiency of Erhardt. Murakami et al does not teach the required range of 1-30% by weight of recycled material. Indeed, Murakami et al teaches just the opposite.

Applicants acknowledge the citation of JP-A-5-154861 and JP-A-5-169479 at column 1, lines 49-62, in Murakami et al, as pointed out by the Office. In contrast to what is asserted by the Office, however, Murakami et al cites the JP references to *teach away* from using relatively small amounts of recycled materials. Referring to these JP references, Murakami et al clearly states:

> "...the use of [76 parts by weight] of [non-recycled] materials increases the production cost." Murakami et al column 1, lines 57-59.
>
> "...and thus the [JP reference] methods are not so effective as a recycling method of waste materials." Murakami et al column 1, lines 60-63.

Applicants also acknowledge the Office's mention of column 2, lines 9-15 of Murakami et al at the bottom of page 6 of the Official Action. Again, the Office has not considered that this passage in Murakami et al *teaches away* from using recyled material in the core part of a sandwich. Applicants kindly point out Murakami et al's succeeding paragraph (column 2, lines 15*ff*), wherein Murakami et al states that:

> "the sandwich molded product as described above shows severe lowering of the properties as compared with the molded product composed of a new resin alone, and the foregoing method cannot thus be applied for the product required to have a high impact resistance at low temperature, such as, exterior parts of motor cars, for example, bumpers under the existing circumstances."

Thus, the background section of Murakami et al eschews recycled components which contain too small of an amount of recyclate, and it also recognizes that composite parts that contain recycled materials can exhibit "severe lowering" of properties, when compared to products made from virgin resin. Accordingly, the background section in Murakami et al cannot be relied upon to cure the deficiencies of Erhardt, because the background section of Murakami et al clearly teaches away from the simple addition of recycled materials to composite components such as Erhardt.

Instead of leading one toward the claimed invention, Murakami et al teaches "blending waste materials of a polyolefin resin composition such as motor car bumpers with a *specific ethylene polymer* at a *specific weight ratio*," at column 3, lines 21-24. This specific weight ratio is clearly described at column 3, lines 30*ff* of Murakami et al, which includes 100 parts by weight of [recycled materials] and 3 to 15 parts of weight of an ethylene polymer with a specific molecular weight. Murakami et al's weight ratio works out to about 87-97% by weight of recycled materials, which is far beyond the claimed range of 1-30% by weight. See Murakami et al column 5, lines 1-6, which states that if the amount of ethylene additive exceeds more than 15 parts by weight (per 100 parts by weight of the waste materials), the mechanical strength and heat resistance are undesirably lowered. See also the invention examples at columns 11 and 12 of Murakami et al, which do not depart from his required weight ratio. Comparative Examples 6 and 7 at Table 3, column 12, of Murakami et al are particularly notable because these contain less than the amount of waste materials required by Murakami et al. It is clear that these comparative example moldings in Murakami et al have reduced heat deformation temperatures.

Accordingly, based on the teachings of Murakami et al, one would not be motivated to use recycled materials in amounts less than 87-97% by weight. Not only does Murakami et al not cure the deficiencies of Erhardt, it teaches directly away from the claimed invention. For these reasons, the invention is not made obvious by either Erhardt or Murakami et al alone or in combination.

The addition of Seiler et al does not cure the deficiencies of either Erhardt or Murakami et al. Seiler et al merely teaches certain recyclable materials. Seiler et al does not teach that these or any other recyclates should be used in amounts such as claimed or that the core of a sandwich panel should contain at least recycled shell materials. Thus, even when

all three cited references are combined, one does not arrive at the claimed invention. The art rejections are unsustainable, and their withdrawal is kindly requested.

The objection to Claim 1 for the term "recyclate" is traversed. Applicants submit that this is a proper term and its meaning is clear to one of ordinary skill in this art. This term also appears in patent literature. See, e.g., U.S. Patent No. 5,122,398 to Seiler et al, column 5, lines 43 and 67, and column 6, line 37. The meaning of this term is also clear based on a review of the present specification. See, e.g., specification, page 1, line 21, and page 2, lines 8*ff*. Applicants respectfully remind that the Office that they may be their own lexicographer, and their use of the subject term is not repugnant or contrary to its accepted meaning as generally understood in the recyling art. Withdrawal of this objection is kindly solicited.

The rejection of Claims 1-4 under 35 U.S.C. § 112, second paragraph, is obviated by amendment. The claims have been extensively amended, where necessary, such that they are now believed to distinctly claim and particularly point out that which is regarded as the invention. Withdrawal of this ground of rejection is kindly requested.

Applicants confirm their election of Group I, Claims 1-4, made with traverse and by telephone. Applicants' traverse Claim 5 is made moot by their cancellation of this claim. Applicants kindly request the Examiner to consider rejoining Claim 6, however, should she agree that the product claims are allowable.

Finally, an Information Disclosure Statement was filed on August 23, 2002, which appears to have crossed the Office Action in the mail. Applicants submit herewith a copy of the IDS (including petition fee) and Applicants' kindly request the Examiner to consider the same.

Applicants submit that but for consideration of the IDS submitted herewith, this case is in condition for allowance. The Examiner is kindly requested to pass this case to issue.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Norman F. Oblon
Attorney of Record
Registration No. 24,618

John K. Pike, Ph.D.
Registration No. 41,253

22850

(703) 413-3000
Fax #: (703) 413-2220
NFO/JKP:kst

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IN THE CLAIMS

--1. (Amended) A sandwich panel, comprising:

[A.] (A) a core layer of polypropylene particle form,

[B.] (B) at least two cover layers of fiber-reinforced polypropylene; and [also optionally]

[C.] (C) optionally, one or more decorative layers,

wherein the core layer is sandwiched between said cover layers and comprises [includes] from 1 to 30% by weight of recyclate particles of components A, B and optionally C,

and wherein, when said decorative layers are present, the foam core and cover layers are sandwiched between said decorative layers.

4. (Amended) A sandwich panel as claimed in claim 1, wherein the decorative panel comprises a fiber web, a polymeric film, [or] a laminated foam film or unlaminated foam [film].

5. (Cancelled).

Claims 7-26 (New).--